

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-142. (Cancelled)

143. (New) An isolated nucleic acid comprising a strand that is a template for an RNA molecule that comprises a sense nucleic acid sequence, an antisense nucleic acid sequence, and a cis-acting ribozyme sequence, wherein said sense nucleic acid sequence is complementary to said antisense nucleic acid sequence, and wherein said sense and antisense nucleic acid sequences form double-stranded RNA upon cleavage of said RNA molecule by said cis-acting ribozyme sequence.

144. (New) The isolated nucleic acid of claim 143, wherein said antisense nucleic acid sequence is complementary to a viral mRNA sequence.

145. (New) The isolated nucleic acid of claim 143, wherein said antisense nucleic acid sequence is complementary to a mammalian mRNA sequence.

146. ((New) The isolated nucleic acid of claim 143, wherein said sense nucleic acid sequence is from about 15 to about 50 nucleotides in length.

147. (New) The isolated nucleic acid of claim 143, wherein said sense nucleic acid sequence comprises the sequence as set forth in SEQ ID NO: 1, 2, 3, 4, 5, 6, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, or 54.

148. (New) The isolated nucleic acid of claim 143, wherein said cis-acting ribozyme sequence is between said sense nucleic acid sequence and said antisense nucleic acid sequence.

149. (New) The isolated nucleic acid of claim 143, wherein said nucleic acid comprises a promoter sequence that promotes transcription of said RNA molecule.

150. (New) The isolated nucleic acid of claim 149, wherein said promoter sequence is a tissue-specific promoter, cell-specific promoter, or pathogen-specific promoter.

151. (New) The isolated nucleic acid of claim 149, wherein said promoter sequence is an H1 promoter sequence or a U6 promoter sequence.

152. (New) The isolated nucleic acid of claim 143, wherein said RNA molecule is transcribed from said nucleic acid when said nucleic acid is within a cell.

153. (New) The isolated nucleic acid of claim 143, wherein said strand is a template for more than one cis-acting ribozyme sequence.

154. (New) The isolated nucleic acid of claim 153, wherein each of said more than one cis-acting ribozyme sequence is different.

155. (New) An isolated nucleic acid comprising a strand that is a template for an RNA molecule that comprises a sense nucleic acid sequence, an antisense nucleic acid sequence, and a cis-acting ribozyme sequence, wherein said sense nucleic acid sequence is complementary to said antisense nucleic acid sequence, wherein said sense and antisense nucleic acid sequences form a single-stranded RNA upon cleavage of said RNA molecule by said cis-acting ribozyme sequence, and wherein said single-stranded RNA contains no more than one hairpin loop structure and lacks RNA cleaving activity.

156. (New) The isolated nucleic acid of claim 155, wherein said nucleic acid is double stranded.

157. (New) The isolated nucleic acid of claim 155, wherein said nucleic acid is single stranded.

158. (New) The isolated nucleic acid of claim 155, wherein said strand is a template for more than one cis-acting ribozyme sequence.

159. (New) The isolated nucleic acid of claim 158, wherein each of said more than one cis-acting ribozyme sequence is different.

160. (New) A method of identifying sequences capable of inducing RNA interference against a target mRNA, said method comprising:

(a) introducing a vector preparation into cells, wherein each vector of said vector preparation comprises:

(1) a target nucleic acid sequence, wherein said target nucleic acid sequence is a template for said target mRNA;

(2) a reporter nucleic acid sequence, wherein said reporter nucleic acid sequence encodes a polypeptide, and wherein said target nucleic acid sequence and said reporter nucleic acid sequence are transcribed as a single fusion mRNA; and

(3) a promoter sequence region, wherein said promoter sequence region comprises: (i) a member of a plurality of test nucleic acid sequences, and (ii) two promoter sequences operably linked to said member in an arrangement that promotes transcription of both strands of said member;

(b) identifying at least one cell lacking said polypeptide; and  
(c) obtaining the sequence of said member from said cell identified in step (b), thereby identifying said sequence as being capable of inducing RNA interference against said target mRNA.

161. (New) The method of claim 160, wherein said polypeptide is a fluorescent polypeptide.

162. (New) The method of claim 160, wherein said polypeptide is lethal to said cell.